

Application No.: 10/643,790

Docket No.: JCLA10858-R

**REMARKS**

This is a full and timely response to the outstanding final Office Action mailed on July 18, 2007. Reconsideration and allowance of the application and presently pending claims 1-13, as amended, are respectfully requested.

**Present Status of the Application**

Claim 1 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Harrer (U.S.P.N. 6,091,304, hereinafter "Harrer") in view of Lansford et al. (U.S.P.N. 6,163,568, hereinafter "Lansford"). Claim 2 also stands rejected under 35 U.S.C. 103(a) as being unpatentable over Harrer in view of Lansford and further in view of Suto (U.S.P.A.P. 2003/0052744, hereinafter "Suto"). Claims 3-9 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Harrer in view of Lansford and further in view of Suto, Joshi et al. (U.S.P.N. 5,650,754, hereinafter "Joshi") and Bomba (U.S.P.N. 3,962,640, hereinafter "Bomba").

In response thereto, Applicants have amended independent claims 1, 2, 3, 4, 5, 7 and 8 to more clearly distinguish the present invention from the prior art of references. Further, claims 10-13 have been newly added without introducing any new matter. Support is indicated in FIGs. 3 and 4 of the present invention. The specification has been revised to rectify some informalities. Upon entry of the proposed amendments, claims 1-9 remain pending, and reconsideration of those claims is courteously solicited.

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**Discussion of Office Action Rejections under 35 U.S.C. 103(a)**

*Claim 1 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Harrer in view of Lansford. Claim 2 also stands rejected under 35 U.S.C. 103(a) as being unpatentable over Harrer in view of Lansford and further in view of Suto. Claims 3-9 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Harrer in view of Lansford and further in view of Suto, Joshi, and Bomba. Applicants otherwise traverse the aforesaid rejections because a prima facie case of obviousness has not been established by the Office Action.*

When the references cited by the examiner fail to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned. *In re Deuel*, 51 F.3d 1552, 34 USPQ2d 1210, 1214 (Fed. Cir. 1995)

With respect to Applicants' claim 1, as currently amended, it recites in part,

"A voltage controlled oscillator (VCO) device, suitable for use in a frequency shift keying (FSK) system, the VCO device comprising:

a switching varactor unit, having a first terminal and a second terminal, wherein the switching varactor unit has at least a first diode and a second diode, the positive ends of the first diode and the second diode are commonly coupled to a node, and the node receives a frequency-selection voltage, such that the switching varactor unit produces a capacitance according to the frequency-selection voltage;  
(omitted)" (Emphasis added)

In comparison with FIG. 3 of Harrer and FIG. 3 of the present invention, the Applicants'

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switching varactor unit 34 is formed by two diodes of which the positive ends are coupled to a node. Written support for the above description is indicated in paragraph [0024] of Applicants' specification, stating that "[T]he switching varactor unit 34 can, for example, be a switching diode unit 34 having at least a diode 34a and at least a second diode 34b, which form as a diode pair. The switching diode unit 34 will be described in detail later. The positive ends of the diodes are commonly coupled to the node X and output ends of the diode are a first terminal and a second terminal." However, after carefully reviewing Harrer, Applicants respectfully submit that Harrer fails to teach or suggest the above feature proposed by the present invention.

Further, after a diligent study, it is respectfully submitted that the varactor diode unit 121 depicted in FIGs. 1, 4, 5 and 6 of Suto is not equivalent to the switching varactor unit as illustrated in FIG. 3 of the present invention. Specifically, in FIGs. 1, 4, 5 and 6 of Suto, the varactor diode unit is formed by the diodes whose two negative ends are coupled. Nevertheless, as discussed in the previous paragraph, the present invention is directed to a VCO device comprising the switching varactor unit having two diodes of which the positive ends are commonly coupled to the node. Accordingly, Suto fails to teach or suggest at least the technical feature "the switching varactor unit has at least a first diode and a second diode, the positive ends of the first diode and the second diode are commonly coupled to a node" proposed in claim 1 of the instant application.

In light of the foregoing, it is believed that both Harrer and Suto are silent about the fact that Applicants' switching varactor unit has two diodes unit whose positive ends are coupled to

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the node. Therefore, even if Harrer is combined with Suto or any other cited references of record, the combination still fails to teach or suggest all aspects of claim 1 of the present invention. Thus, the establishment of the *prima facie* case of obviousness is improper.

Since the same amendment made to Applicant's claim 1 has also been made to independent claims 3 and 8 of the present invention, the currently claimed features recited therein render the non-establishment of the *prima facie* case of obviousness as has alleged by the Examiner, and thus claims 3 and 8, for at least the same reasons furnished hereinbefore, are non-obvious and patentable over the cited references of record.

Applicants therefore respectfully request the withdrawal of the rejections under 35 U.S.C. § 103(a) of claims 1, 3, and 8 and claims 2, 4-7, and 9 depending therefrom.

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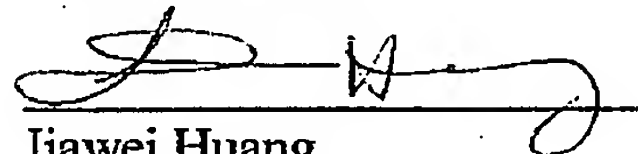
CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-13 are in proper condition for allowance and an action to such effect is solemnly assured. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is gratefully invited to call the undersigned.

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Respectfully submitted,  
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